

JOURNAL OF SOUND AND VIBRATION

EDITORS

P. E. Doak (Senior)
W. Soedel (North America)

EDITORIAL BOARD

C. W. Bert
H. O. Berktaý
A. Cabelli
B. L. Clarkson
D. G. Crighton
E. H. Dowell
I. Elishakoff
C. Gazanhes
G. M. L. Gladwell
M. Heckl
D. J. Johns
A. W. Leissa
S. Lindblad
D. J. Mead
C. D. Mote
A. Powell
C. G. Rice
J. B. Roberts
D. G. Stephenis
W. Szemplinska-Stupnicka
J. M. T. Thompson
A. Tondl
G. B. Warburton
R. G. White
G. Yamada

VOLUME 138

1990

ACADEMIC PRESS

Harcourt Brace Jovanovich, Publishers

LONDON SAN DIEGO

NEW YORK BOSTON

SYDNEY TOKYO TORONTO

ISSN 0022-460X



CONTENTS OF VOLUME 138

Volume 138, No. 1, 8 April 1990

NISHIDA, K., KUBOTA, Y., HAYASHI, S. and TOMITA, T., Errors in the automatic measurement of spatial acoustic intensity in the direction of sound energy propagation with a rotating probe	1
TZOU, H. S. and TSENG, C. I., Distributed piezoelectric sensor/actuator design for dynamic measurement/control of distributed parameter systems: A piezoelectric finite element approach	17
ABOUDI, J., Dynamic response of composites with Coulomb frictional slippage between the phases	35
HELBER, R., DONCKER, F. and BUNG, R., Vibration attenuation by passive stiffness switching mounts	47
NAGAYA, K. and KATO, S., Transient response of a multi-span beam on non-symmetric non-linear supports	59
NILSSON, A. C., Wave propagation in and sound transmission through sandwich plates	73
KIM, J.-S. and LEE, C.-W., Constrained output feedback control of flexible rotor-bearing systems	95
SHEN, M.-H. H. and PIERRE, C., Natural modes of Bernoulli-Euler beams with symmetric cracks	115
FRIDMAN, M., The method of multiple scales applied to the Bouasse-Sarda regulator	135

Letters to the Editor

FARN, R. W. and HANSON, D. R., Hearing thresholds of young people aged 11-25 years: A review and overall assessment	155
KAPITANIAK, T. and WOJEWODA, J., Strange non-chaotic attractors of a quasi-periodically forced Van der Pol's oscillator	162
MAURIZI, M. J., BELLES, P. and ROSALES, M., A note on free vibrations of a constrained cantilever beam with a tip mass of finite length	170

Volume 138, No. 2, 22 April 1990

LAULAGNET, B. and GUYADER, J. L., Sound radiation by finite cylindrical ring stiffened shells	173
KLEPP, H. J., Migration of the oscillation centre inside equilibrium zones	193
BHAT, R. B., LAURA, P. A. A., GUTIERREZ, R. G., CORTINEZ, V. H. and SANZI, H. C., Numerical experiments on the determination of natural frequencies of transverse vibrations of rectangular plates of non-uniform thickness	205
JIANG, J.-S., GU, S.-N., WANG, Y.-J. and YAO, Q.-H., A modal parameter identification technique and its application to large complex structures with multiple steady sinusoidal excitation	221

CONTENTS OF VOLUME 138

QIAN, G.-L., GU, S.-N. and JIANG, J.-S., The dynamic behaviour and crack detection of a beam with a crack	233
ZHAO, L. C. and YANG, Z. C., Chaotic motions of an airfoil with non-linear stiffness in incompressible flow	245
SHARMA, S. D., MANI, K. and ARAKERI, V. H., Cavitation noise studies on marine propellers	255
ROSEN, A., LOEWY, R. G. and MATHEW, M. B., A study of the influence of predeformations on the vibrations of blades	285
WANG, J.-H., Prediction of vibration at inaccessible points using measurable data	305
KUBOTA, Y., SEKIMOTO, S. and DOWELL, E. H., The high-frequency response of a plate carrying a concentrated mass	321

Letters to the Editor

MAURIZI, M. J., LAURA, P. A. A., BAMBILL, D. V. and ROSSIT, C., Vibrating circular plate carrying a concentrated mass: comparison of results .	335
FARSTAD, J. E. and SINGH, R., An acoustic transfer matrix model for a refrigeration condenser	337
NAGESWARA RAO, B. and VENKATESWARA RAO, G., Stability of a cantilever column under a tip-concentrated subtangential follower force with damping	341
DAVIES, P. O. A. L. and DOAK, P. E., Wave transfer to and from conical diffusers with mean flow	345

Volume 138, No. 3, 8 May 1990

KOTULSKI, Z., Optimization of sensors' location in a stochastic extrapolation problem	351
NAESS, A., Approximate first-passage and extremes of narrow-band Gaussian and non-Gaussian random vibrations	365
RIZOS, P. F., ASPRAGATHOS, N. and DIMAROGONAS, A. D., Identification of crack location and magnitude in a cantilever beam from the vibration modes	381
JEGLEY, D. C., The effects of transverse shearing and anisotropy on vibration frequencies of laminated cylinders	389
SENSOR, D., Broadband scattering from shear flows and the non-Doppler remote sensing of velocity profiles	405
HSIEH, S. R. and SHAW, S. W., The stability of modes at rest in a chaotic system	421
YOSHIMURA, T. and SUGIMOTO, M., An active suspension for a vehicle travelling on flexible beams with an irregular surface	433
UDUPA, K. M. and VARADAN, T. K., Hierarchical finite element method for rotating beams	447

CONTENTS OF VOLUME 138

EL CHEBAIR, A., MISRA, A. K. and PAÏDOUSSIS, M. P., Theoretical study of the effect of unsteady viscous forces on inner- and annular-flow-induced instabilities of cylindrical shells	457
GLENDINNING, A. G., NELSON, P. A. and ELLIOTT, S. J., Experiments on a compressed air loudspeaker	479
CHAPMAN, C. J. and GLENDINNING, A. G., A theoretical analysis of a compressed air loudspeaker	493
KENNEDY, D. and WILLIAMS, F. W., Vibration and buckling of anisotropic plate assemblies with Winkler foundations	501
<i>Letters to the Editor</i>	
LIAO, M. and POPPLEWELL, N., Graphical aid for consistent swept frequency parameters	511
MAURIZI, M. J., LAURA, P. A. A. and ROSSI, R. E., Comments on "Natural frequencies of beams under compressive axial loads"	516
UHRIG, E., The influence of shear deformation on the critical tangential follower force of a bar with thin-walled cross-section	517
HARIK, I. E. and MOLAGHASEMI, H. R., Vibration of sector plates on elastic foundations	524
INDEX TO VOLUME 138	529

Copyright © 1990, by Academic Press Limited

ALL RIGHTS RESERVED

No part of this volume may be reproduced in any form, by photostat, microfilm, or any other means, without written permission from the publishers.

Printed in Great Britain